

Bellwork: 9/12/12

AT&T charges you \$.08 per minute plus a monthly access fee of \$7.95. Last month you referred a friend to the company and in return you received a \$15 service credit on your bill this month. If your bill is \$8.55, how many minutes did you spend on the phone?

$$.08x + 7.95 - 15 = 8.55$$

$$.08x - 7.05 = 8.55$$

$$\begin{array}{r} .08x - 7.05 = 8.55 \\ + 7.05 \quad + 7.05 \\ \hline \end{array}$$

$$.08x = \$15.60$$

$$x = 195$$

195 minutes

$$\textcircled{4} \quad 6(x-3) - 2(x-2) = 11$$

$$6x - 18 - 2x + 4 = 11$$

$$4x - 14 = 11$$

LITERAL EQUATIONS

Literal Equation is an equation that contains two or more variables.

Examples: Formulas from Geometry

Formula for volume of a cube:

$$V = s^3$$

Formula for area of a circle:

$$A = \pi r^2$$

Formula for volume of a square pyramid:

$$V = \frac{1}{3}s^2h$$

1.) Solve $a = \frac{V - V_0}{t}$ for V_0

$$(t)a = \frac{V - V_0}{\cancel{t}} (\cancel{t})$$

$$\underset{-V}{at} = \underset{-V}{V - V_0}$$

$$\underset{-1}{at - V} = \underset{-1}{-V_0}$$

$$\boxed{-at + V = V_0}$$

2.) Solve $P = 2l + 2w$ for w

$$P = 2l + 2w$$

$$\frac{-2l - 2l}{\cancel{2}} \quad \frac{P - 2l}{\cancel{2}} = \frac{2w}{\cancel{2}}$$

$$\boxed{\frac{P - 2l}{2} = w}$$

3.) Solve $A = \frac{1}{2}h(b_1 + b_2)$ for b_2

$$(2) A = \cancel{\frac{1}{2}} h(b_1 + b_2)$$

$$\frac{2A}{h} = \cancel{h}(b_1 + b_2)$$

$$\frac{2A}{h} = b_1 + b_2$$

$$\begin{array}{r} -b_1 \quad -b_1 \\ \hline \frac{2A}{h} - b_1 = b_2 \end{array}$$

4.) Solve $I = P(1 + rt)$ for t

$$\frac{I}{P} = \frac{P(1 + rt)}{P}$$

$$\frac{I}{P} = 1 + rt$$

$$\frac{I}{P} - 1 = rt$$

$$\frac{I}{P} - 1 = \cancel{r}t$$

$$\frac{\frac{I}{P} - 1}{r} = t$$

5.) Solve $T = T_0 - a(z - z_0)$ for a

6.) Solve $F = G \frac{mM}{r^2}$ for m

7.) Solve $S = L - RL$ for L

8.) Solve $d = \frac{ax - bx}{c}$ for x

Homework: 9/12/12

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Quiz - Friday 9/14

- ① Add / Subtract / Multiply / Divide Fractions
- ② PEMDAS
- ③ Exponents
- ④ Solving Equations
- ⑤ Sometimes, Always, Never
- ⑥ Literal Equations
- ⑦ WORD PROBLEMS!